RACES Catalog

1 June 2020
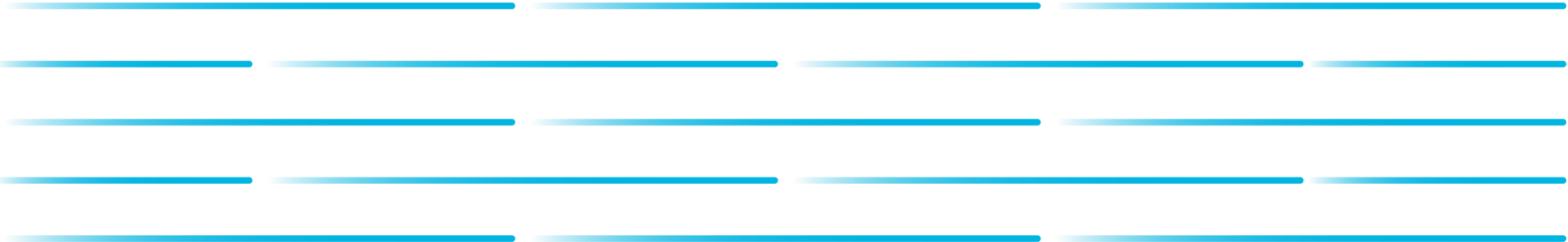
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RACES Overview

What is RACES?

RACES is RENEWABLES' Oracle ERP of Choice. ERP stands for Enterprise Resource Planning. ERP's are designed to tie integrations, users, and business process together. RACES is the 1st Renewables Owned ERP.

RACES has been in operation since May '16 for on-shore and off-shore wind
- Germany/Spain – '16
- US/Canada – '17
- Japan, Australia, Thailand – '18
- Brazil, India, Netherlands, Finland, UK, France, Sweden – '19

6500+ Users
- 2 Largest on-shore wind factories (Pensacola, Salzbergen)
- Service Operations in 45 countries (15 with fully integrated financials)
- Provides LM GL Consolidation

Integrated process design
- 900+ supported business processes (including finance, supply chain, and projects and services)
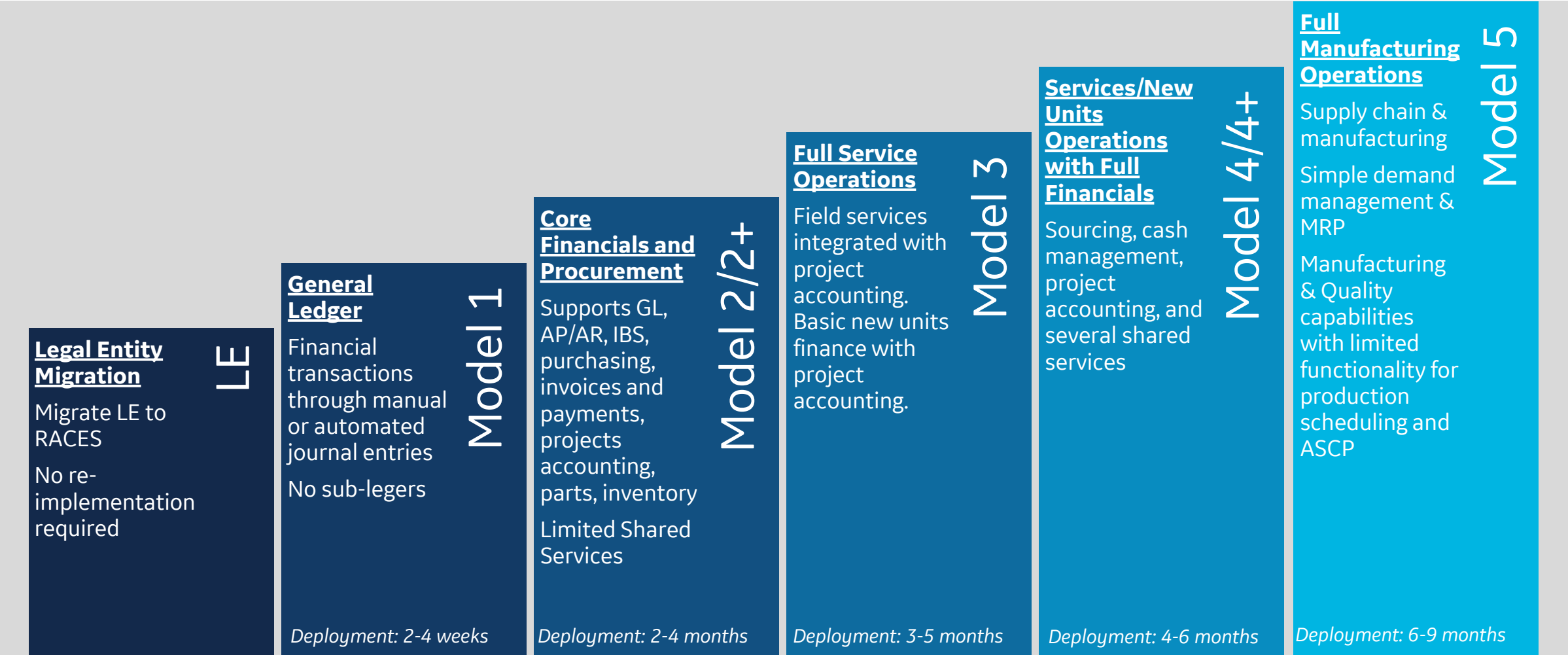- 40+ Integrated systems and shared services

Enterprise Standards & COA Compliant

Global Blueprint Design – Standardization across regions

Renewables
Automates
Consolidates
Eliminates
Simplifies

RACES Blueprints

There are 5 models of **RACES**, called **Blueprints.** Each model builds on the previous models.
The process to move up to next the model is simple, and does not require a new deployment Stepping up to the next model is treated as enhanced functionality.

Legal Entity Migration — LE — Model 1

Legal Entity Migration

Migrate LE to RACES

No re-implementation required

General Ledger — Model 1

General Ledger

Financial transactions through manual or automated journal entries

No sub-legers

Deployment: 2-4 weeks

Core Financials and Procurement — Model 2/2+

Core Financials and Procurement

Supports GL, AP/AR, IBS, purchasing, invoices and payments, projects accounting, parts, inventory

Limited Shared Services

Deployment: 2-4 months

Full Service Operations — Model 3

Full Service Operations

Field services integrated with project accounting. Basic new units finance with project accounting.

Deployment: 3-5 months

Services/New Units Operations with Full Financials — Model 4/4+

Services/New Units Operations with Full Financials

Sourcing, cash management, project accounting, and several shared services

Deployment: 4-6 months

Full Manufacturing Operations — Model 5

Full Manufacturing Operations

Supply chain & manufacturing

Simple demand management & MRP

Manufacturing & Quality capabilities with limited functionality for production scheduling and ASCP

Deployment: 6-9 months

Model Details (by Features)

Business Processes
Business Capabilities
Modules
Integrations
Shared Services
User Roles

Business Processes

	ITO	Engineering	Supply Chain				Projects & Services			Finance		
	SFDC	ENOVIA	ORACLE			OTM	ORACLE PRIMAVERA	ORACLE		ORACLE + Shared Services		
Model	Inquire to Order	Design to Deploy	Demand to Plan	Purchase to Pay	Plan to Produce	Logistics	Project Execution	Service to Resolution	Parts & Repairs	Bill to Collect	Order to Cash	Record to Close
1												GL Only
2/2+				2: Indirect 2+: Direct*						■	■	■
3				■			■	■		■	■	■
4/4+		■		■	■	■	*Optional*	■	WMS* SPP*	■	■	■
5		■	■	■	■	■	*Optional*	■	■	■	■	■

*Optional features

Each of the 5 main business process (ex. Finance or Supply Chain) comprises of a sub-set of processes. Model capabilities are tied to business processes, and each model includes more comprehensive processes.

Business Capabilities

Each Model builds on the previous Blueprint Model

Model 1

- Enterprise standard and Stat compliant
- GL only, feeding into HFM and ARM
- Includes Concur and Payroll
- Manual or automated journal entries, but no sub-ledgers.

Model 2/2+

- Purchasing and AP/AR
- Banking, including SABRIX integration

Model 2+
- Includes inventory for parts sales orders and shipping

Model 3

- Oracle Field Services and spares management
- New units project accounting and services project accounting.

Model 4

- Full project accounting for services
- Services warehouse management and parts planning
- Includes complete supply chain process
- Full project cost budgeting, with Primavera/Unifier
- Deferred COGS management

Model 5

- New Units Manufacturing

Modules

Each Model builds on the previous Blueprint Model

Model 1

- General Ledger
- Financial Accounting Hub
- Approvals Management (AME)

Model 2/2+

- SLA
- Fixed Assets
- Accounts Receivables
- Payables Core
- Indirect (Expense Item) Purchasing

Optional
- Sourcing

Model 2+
- Order Management (External Parts Orders)
- Shipping (External Parts Orders)
- Cost Management
- PIM Basic
- Inventory

Model 3

- Spares Management
- Advanced Pricing (pricing formulae)
- Purchasing (Internal Requisition)
- Order Management & Billing (ISO, Transactional Services Orders & Billing if required)
- Shipping (ISO)
- Field Services
- Mobile Field Services
- Time and Labor (OTL)
- Install Base
- Cost Management (Material transactions / Cost Distributions supporting Services)
- Project Foundation
- Project Costing
- Project Billing

Model 4/4+

- Project Management
- Service Contracts
- Service Parts Planning
- Demantra
- iSupplier
- Quoting

Optional
- iStore
- iSupport
- WMS
- MSCA
- Quality
- Depot Repair
- Sourcing

Model 4+
- Project Manufacturing
- Project Contracts

Model 5

- ASCP
- BOM
- Cash Management
- Engineering
- Inventory
- MES
- MOAC
- Payables DR4
- PIM
- Primavera (P6)
- Production Scheduling
- Projects Accounting
- Purchasing
- Shipping
- Unifier
- WIP

Integrations

Each Model builds on the previous Blueprint Model

Model 1

- HR Employees
- HFM
- DRM
- ARM
- BMA
- CONCUR to GL
- FDW
- WSS
- TPC
- GPAS
- ESGAP Exchange Rates Repository

Model 2/2+

- TPS
- BMA
- ARM
- SABRIX
- DRM
- Customer Connect
- Supplier Connect
- FDMEE
- Documentum
- Global HR
- IBS
- GECARS
- Perceptive
- Multi Way Match (MWM)
- PO WHT Engine
- Clear Orbit (US)
- B2P DW
- Web Cash

Model 3

- One Biller

Model 4/4+

Model 4+

- SFDC
- Unifier
- DPRO to DTS Feed

Model 5

Same as Model 4/4+

Shared Services

Each Model builds on the previous Blueprint Model

Model 1

- HFM
- ARM
- FDW
- TPC
- BI Reports

Optional
- Concur
- Payroll
- Wall Street System

Model 2/2+

- Supplier Connect
- Customer Connect
- Sabrix
- TPS
- TRS
- WebCash
- Perceptive
- Oracle Service Cloud
- MyPayments
- IBS
- IBS-SOA
- PARD
- Documentum

Optional
- APSS
- Tungsten
- EPIQ
- BMA to GL
- PLM
- Interlog
- WHT Manager
- GPAS
- GEARS

Model 3

Same as Model 2/2+

Model 4/4+

Optional
- SFDC
- OTM
- Clear Orbit
- MyTime
- Kronos
- Unifier / P6
- Dpro

Model 5

- HR3
- Maximo

Optional
- eNCR
- Wind Master File

User Roles

Each Model builds on the previous Blueprint Model

Model 1	Model 2/2+	Model 3	Model 4/4+	Model 5
• Controllership • Tax • FP&A	• New Units & Services billing (I2C) • Fixed assets analyst • AP processing (Invoices/Payments - APEX) • Intercompany/IBS • Buyers • Requisitioners • Receivers • Shippers • ERP Item Management • Accounts Payables • Customer Maintenance • Supplier Maintenance	• PLM Item Management • Field Services (Managers & Technicians) • Field Services Operational Finance (APC/FAS) • Fleet Solutions • Services Finance • Services Parts Fulfillment • Install Base Management	• Parts Planning • Service Transactional / Quoting • Pricing Leader • Country Finance (Financial Closing) • Country Services Parts Fulfillment	Same as Model 4/4+

Model Details (by Model)

Model 1
Model 2/2+
Model 3
Model 4/4+
Model 5

Model 1

This model allows for the organization to maintain a General Ledger.

Implementation Timeline: 2-4 weeks

Comparisons	Features		
	BUSINESS PROCESSES AND CAPABILITIES	**MODULES**	**USER ROLES**

MODEL 2/2+

Model 2/2+ includes all financial processes, such as indirect purchasing, account payables & receivables, and processing customer invoices and payments.

BUSINESS PROCESSES AND CAPABILITIES

- *Record to Close*
  - Enterprise standard and Stat compliant
  - GL only, feeding into HFM and ARM
  - Includes Concur and Payroll
  - Manual or automated journal entries, but no sub-ledgers.

MODULES

- General Ledger
- Financial Accounting Hub
- Approvals Management (AME)

USER ROLES

- Controllership
- Tax
- FP&A

Model 2/2+

This model allows for basic financials and limited shared services. It provides the ability to execute business functions required to operate a small business.

Implementation Timeline: 2-4 months

Comparisons	Additional Features*

BUSINESS PROCESSES AND CAPABILITIES

MODULES

USER ROLES

MODEL 1

Builds on Model 1 by taking the general financial capabilities of and building on to include all financial business processes.

MODEL 2+

Provides additional functions to enter Direct PO, sales orders for external parts sales, ship parts and create customer invoices from sales orders.

- *Purchase to Pay*
  - Purchasing and AP/AR
- *Bill to Collect*
  - Banking, including SABRIX integration
- *Order to Cash*

Model 2+
- Includes inventory for parts sales orders and shipping

- SLA
- Fixed Assets
- Accounts Receivables
- Payables Core
- Indirect (Expense Item) Purchasing

Optional
- Sourcing

Model 2+
- Order Management (External Parts Orders)
- Shipping (External Parts Orders)
- Cost Management
- PIM Basic
- Inventory

- New Units & Services billing (I2C)
- Fixed assets analyst
- AP processing (Invoices/Payments - APEX)
- Intercompany/IBS
- Buyers
- Requisitioners
- Receivers
- Shippers
- ERP Item Management
- Accounts Payable
- Customer Maintenance
- Supplier Maintenance

Builds on preceding models

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Model 3

This model builds enables the creation of service contracts and the ability to bill and recognize revenue for Services revenue streams, as well as New Unit Project Accounting.

Implementation Timeline : 2-3 months

Comparisons	Additional Features*

MODEL 2/2+

Builds on Model 2/2+ with Project Accounting for new units and services (project creation, billing, revenue and costing).

MODEL 4/4+

Model 4/4+ adds on with supply chain manufacturing capabilities.

BUSINESS PROCESSES AND CAPABILITIES

- New units project finance.
- Services projects finance.
- Service to Resolution
- Parts & Repairs -Oracle Field Services and spares mgnt

MODULES

- Spares Management
- Advanced Pricing
- Purchasing (Internal Requisition)
- Order Management & Billing Shipping (ISO)
- Field Services
- Mobile Field Services
- Time and Labor (OTL)
- Install Base
- Cost Management (Material transactions / Cost Distributions supporting Services)
- Project Foundation
- Project Costing
- Project Billing

USER ROLES

- PLM Item Management
- Field Services (Managers & Technicians)
- Field Services Operational Finance (APC/FAS)
- Fleet Solutions
- New Units Finance
- Services Finance
- Services Parts Fulfillment
- Install Base Management

*Builds on preceding models

Model 4/4+

This model includes services and new units operations to allow for full financial capabilities.

Implementation Timeline : 4-6 months

Comparisons	Additional Features*

MODEL 3

Builds on Model 3 by including the creation of service contracts and the ability to bill and recognize revenue for Services revenue streams.

MODEL 4+

Model 4+ includes supply chain manufacturing capabilities such as order management, shipping, and inventory.

BUSINESS PROCESSES AND CAPABILITIES

- *Design to Deploy*
- *Plan to Produce*
- *Logistics*
- *Project Execution*
  - Full project accounting for services

Model 4+
- Includes complete supply chain process
- Full project cost budgeting, with Primavera/Unifier
- Deferred COGS management

MODULES

- Project Management
- Service Contracts
- Service Parts Planning
- Demantra
- iSupplier
- Quoting
Optional
- iStore
- iSupport
- WMS
- MSCA
- Quality
- Depot Repair
- Sourcing
Model 4+
- Project Manufacturing
- Project Contracts

USER ROLES

- Parts Planning
- Service Transactional / Quoting
- Pricing Leader
- Country Finance (Financial Closing)
- Country Services Parts Fulfillment

Model 5

This model is primarily for New Units Manufacturing.

Implementation Timeline : 6-9 months

Comparisons	Additional Features*

MODEL 4/4+

This model builds on Model 4/4+ with the addition of New Units Material Planning, Sourcing, Purchasing, Inventory, Engineering with Integration to PLM, Production Execution along with Fulfillment and Logistics .

BUSINESS PROCESSES AND CAPABILITIES

- *Demand to Plan*
  - New Units Manufacturing

MODULES

- ASCP
- BOM
- Cash Management
- Engineering
- Inventory
- MES
- MOAC
- Payables DR4
- PIM
- Primavera (P6)
- Production Scheduling
- Projects Accounting
- Purchasing
- Shipping
- Unifier
- WIP

USER ROLES

- No additional

*Builds on preceding models   18

Appendix

Glossary

ARM: Account Reconciliation Manager

B2P DW: Buy to Pay Data Warehouse repository for sourcing

BMA: FX/Gain loss data from APEX creates journals in local GL

Clear Orbit (US): Supplier Collaboration Tool

Customer Connect: Customer master file

Documentum: Store AR Invoices, Purchase Orders

DRM: Data Relationship Manager

ESGAP Exchange Rates Repository: MOR & VAT Rates from GE treasury & Country specific rates from Bloomberg/Reuters housed here

Finance Data Warehouse (FDW): Data store across GE for financial data

GECARS: Collections of dues from External Customers (May Not be needed)

Global HR: Employee master from GE Corporate to local HR

GPAS: Payroll journals for employees

HFM: Hyperion Financial Management

HR Employees: Into RACES ERP

IBS: Internal settlement of AR invoice & POs, AP invoices w/in GE, EOP Accruals Automation to GL

Multi Way Match (MWM): Sourcing & APEX Invoice Validation Tool

Perceptive: APEX Bolt-On for Invoicing Imaging & Hold Resolution

PO WHT Engine: Purchasing with-holding Tax engine

SABRIX: Tax Engine for buying and selling, integrated with EB Tax and TCA

Supplier Connect: Suppler master file

TPC: Applies Tax on the balance sheet accounts.

TPS: Trade Payables Service Settlement Journals to GL

Web Cash: Corporate directive for Cash Management and Reconciliations

WSS: Wall Street System for Hedging

Backup Slides

RACES Blueprints – Technical Details

Description
LE — **Legal Entity migration** to a new one within RACES, no re-implementation required
1 — **General Ledger Only** with no subledgers. Allows for manual or automated journal entries.
2 — **Comprehensive Financials**: GL, indirect purchasing, account payables & receivables, process customer invoices and payments. Model 2+: PA, Parts Orders/Shipping, Asset Inventory and direct purchasing
3 — **Full Service operations**: SR, Task, Debrief, Time management integrated services financials for all streams. Basic new units finance with project accounting.
4 — **Services / New Units operations with integrated financials** enabled project accounting streams to allow contracts RevRec, costing, billing. Model 4+: *integrated* direct purchasing for factories
5 — **Supply Chain & Manufacturing**: Demand planning, warehousing, fulfillment, factory execution.
DR4 — Services solution with NO financials. Offered with Model 1,2 & 2+.

Model Based Artifacts

- ✓ Onboarding/Discovery Questionnaire
- ✓ BR100s by BP model
- ✓ BP80s by BP model
- ✓ ALM Test Plans by BP model
- ✓ Responsibility mapping by BP model
- ✓ L1-L4 Listing by BP model
- ✓ CEMLI Listing by BP model
- ✓ Cutover Templates by model
- ✓ Conversion object listing by BP model
- ✓ Standard Naming convention